

1410 North Hilton • Boise, Idaho 83708-1255 • (208) 373-0502

Dirk Kempthome, Governor Toni Hardesty, Director

March 15, 2005

Certified Mail No. 7000 1670 0013 8128 9267

Jim Warren Merritt Brothers Lumber Company P.O. Box 190 Athol, ID 83801

RE:

Facility ID No. 055-00039, Merritt Brothers Lumber Company, Athol

Final Tier II Operating Permit and Permit to Construct

Dear Mr. Warren:

The Department of Environmental Quality (DEQ) is issuing Tier II Operating Permit and Permit to Construct No. T2-040121 for Merritt Brothers Lumber Company, in accordance with the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.400 - 470 and 58.01.01.200 - 228, respectively.

The enclosed permit is effective immediately and is based on the information contained in your permit application and on the relevant comments received during the public comment period. Please submit a timely renewal application as required by the Rules.

A representative of the Coeur d'Alene Region Office will contact you regarding a meeting with DEQ to discuss the permit terms and requirements. In addition to your facility's plant manager, DEQ recommends the following representatives attend the meeting: your responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with the permit conditions.

You, as well as any other entity, may have the right to appeal this final agency action pursuant to IDAPA 58.01.23 (Rules of Administrative Procedure Before the Board of Environmental Quality). A petition may be filed with the Hearings Coordinator, Department of Environmental Quality, 1410 N. Hilton, Boise, ID 83706-1255, within 35 days of the date of this decision. However, prior to filing a petition for a contested case, DEQ encourages you to contact Bill Rogers at (208) 373-0502 to address any questions or concerns you may have with the enclosed permit.

Sincerely,

Martin Bauer Administrator

Air Quality Division

MB/SYC/sd

Permit No. T2-040121

to Bara

Enclosure



# Air Quality TIER II OPERATING PERMIT And PERMIT TO CONSTRUCT

# State of Idaho Department of Environmental Quality

PERMIT No.: T2-040121

**FACILITY ID No.: 055-00039** 

AQCR: 62

CLASS: SM80

SIC: 2421

ZONE: 11

UTM COORDINATE (km): 521.6, 5310.2

#### 1. PERMITTEE

Merritt Brothers Lumber Company - Remanufacturing Division

#### 2. PROJECT

Permit Modification – Construction of Fifth Dry Kiln

3. MAILING ADDRESS	CITY	STATE	ZIP
Post Office Box 190	Athol	ID	83801
4. FACILITY CONTACT	TITLE	TELEPHONE	
Jim Warren	Mill Manager	208-683-3321	
5. RESPONSIBLE OFFICIAL	TITLE	TELEPHON	E
Jim Warren	Mill Manager	208-683-3321	
6. EXACT PLANT LOCATION		COUNTY	
NE 1/4 NW 1/4 Section 16, Township 56 North, Range 3 West		Kootenai	

#### 7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Dimensional lumber remanufacturing

#### 8. PERMIT AUTHORITY

This permit is issued according to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.400-470 and IDAPA 58.01.01.200-228. This permit pertains only to emissions of air contaminants, which are regulated by the state of Idaho and to the sources specifically allowed to be operated by this permit. Only the terms and conditions pertaining to the Tier II operating permit requirements are subject to the expiration date of this permit.

This permit is not transferable to another person, place, or piece or set of equipment. This permit will expire if construction has not yet begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented in the application and the Idaho Department of Environmental Quality's (DEQ) technical analysis of the supplied information. Changes in design or equipment that result in any change in the nature or amount of emissions may be considered a modification. Modifications are subject to DEQ review in accordance with IDAPA 58.01.01.200 of the Rules for the Control of Air Pollution in Idaho.

DATE ISSUED:

March 15, 2005

TONI HARDESTY, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE EXPIRES:

November 26, 2007

# **Table Of Contents**

AC	RONYMS, UNITS AND CHEMICAL NOMENCLATURE	3
1.	PERMIT SCOPE	4
2.	FACILITY-WIDE CONDITIONS	5
3.	NO. 1 AND NO. 2 NATURAL GAS-FIRED BOILERS	8
4.	DRY KILNS – FIVE TOTAL	9
5.	PLANER MILL AND FINGER-JOINTING MILL	10
6.	SUMMARY OF EMISSION LIMITS	11
7.	GENERAL PROVISIONS	12

# Acronyms, Units And Chemical Nomenclature

AIRS Aerometric Information Retrieval System

AQCR Air Quality Control Region

DEQ Idaho Department of Environmental Quality

EPA U.S. Environmental Protection Agency

gr grain (1 lb = 7,000 grains)

IDAPA a numbering designation for all administrative rules in Idaho promulgated in accordance with

the Idaho Administrative Procedures Act

km kilometer

lb/hr pounds per hour

MMbdft/yr million board feet per year

MMBtu/hr million British thermal units per hour

NO<sub>X</sub> nitrogen oxides

OP operating permit

PM particulate matter

PM<sub>10</sub> particulate matter with an aerodynamic diameter of 10 micrometers or less

PTC permit to construct

SIC Standard Industrial Classification Code

T/yr tons per year

UTM Universal Transverse Mercator

VOC volatile organic compound

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: T2-040121					
Permittee:	Merritt Brothers Lumber Co.	T T OFF 00020	Date Issued:	March 15, 2005	
Location:	Athol, Idaho	Facility ID No. 055-00039	Date Expires	November 26, 2007	

# 1. PERMIT SCOPE

# **Purpose**

- 1.1 The permit modification is to allow for the construction of the facility's fifth dry kiln. The permit incorporates the applicable requirements of Permit No. P-040106, issued to the facility September 13, 2004.
- 1.2 Tier II Operating Permit and Permit to Construct No. T2-040121 replaces Permit No. P-040106, issued September 13, 2004, the terms and conditions of which shall no longer apply.

# Regulated Sources

1.3 Table 1.1 below lists all sources of emissions that are regulated in this permit.

**Table 1.1 REGULATED EMISSION SOURCES** 

Permit Section	Source Description	Emission Controls
2,3	Cleaver Brooks gas-fired boiler No.1, Model L-59569, 29.3 MMBtu/hr, manufactured in 11/74 and installed at the facility in 2/01. Cleaver Brooks gas-fired boiler No.2, Model CB200-350, 14.65 MMBtu/hr, manufactured in 4/73 and installed at the facility in 9/04.	None
2,4	Five dry kilns with an allowable throughput of 170 MMbdft/yr	None
2,5	Cyclone and Baghouse No. 4 – Planer Mill Cyclone No. 5 – Finger-jointer cyclone – Finger-jointing Mill Cyclone No. 6 – Finger-jointer cyclone (pull through) – Finger-jointing Mill	Baghouse
2	Fugitive emissions sites (i.e. old planer chip bin truck loadout, planer shavings bin truck loadout, and plant road.)	Reasonably control (Fugitive dust management plan)

# Permit Requirements Summary

1.4 Table 1.2 below summarizes the action items required in this permit.

Table 1.2 REPORTING, RECORDKEEPING, and MONITORING SUMMARY

Requirement Description	Frequency	Permit Condition
Fugitive complaint log	As needed	2.3
Visible emission inspections of cyclones/baghouse/truck bins	Every calendar quarter	2.5
Maintaining on-site records	Five years	2.6
Monitor throughput of all kilns	Monthly and 12-month summation	4.5, 4.6

AII	AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: T2-040121					
Permittee:	Merritt Brothers Lumber Co.		Date Issued:	March 15, 2005		
Location:	Athol, Idaho	Facility ID No. 055-00039	Date Expires	November 26, 2007		

# 2. FACILITY-WIDE CONDITIONS

# Fugitive Emissions

- 2.1 All reasonable precautions shall be taken to prevent PM from becoming airborne, as required in IDAPA 58.01.01.651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of PM. Some of the reasonable precautions include, but are not limited to, the following:
  - Use, where practical, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of lands;
  - Application, where practical, of asphalt, oil, water or suitable chemicals to, or covering of dirt roads, material stockpiles, and other surfaces which can create dust;
  - Installation and use, where practical, of hoods, fans and fabric filters or equivalent systems to
    enclose and vent the handling of dusty materials. Adequate containment methods should be
    employed during sandblasting or other operations;
  - Covering, where practical, of open-bodied trucks transporting materials likely to give rise to airborne dusts;
  - Paving, where practical, of roadways and their maintenance in a clean condition;
  - Prompt removal, where practical, of earth or other stored material from streets.
- 2.2 The permittee shall comply with the fugitive dust management plan submitted to DEQ on January 15, 2003. Updated as necessary, the plan shall identify all sources at the facility that may emit fugitive dust, appropriate dust control methods for each source, and recordkeeping procedures for documenting the frequency and methods used (i.e., water, chemical dust suppressants, etc.) to reasonably control fugitive emissions.
- 2.3 The permittee shall maintain records of all fugitive dust complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall include, at a minimum, the date each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

#### Visible Emissions

No person shall discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, nitrogen oxides and/or chlorine gas are the only reason(s) for the failure of the emission to comply with the requirements of this section.

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: T2-040121				
Permittee:	Merritt Brothers Lumber Co.		Date Issued:	March 15, 2005
Location:	Athol, Idaho	Facility ID No. 055-00039	Date Expires	November 26, 2007

2.5 The permittee shall conduct a quarterly facility-wide inspection of potential sources of visible emissions during daylight hours and under normal operating conditions. The inspection shall consist of a see/no see evaluation for each potential point source. If any visible emissions are present from any point of emission, the permittee shall either take appropriate corrective action as expeditiously as practicable or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance. The permittee shall maintain records of the results of each visible emission inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test, and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

# Monitoring and Recordkeeping

2.6 The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this operating permit. Records of monitoring information shall include, but not be limited to the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

#### **Excess Emissions**

2.7 The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.

#### Reports and Certifications

Any reporting required by this permit, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certifications, shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete. Any reporting required by this permit shall be submitted to:

Air Quality Permit Compliance Department of Environmental Quality Coeur d'Alene Regional Office 2110 Ironwood Parkway Coeur d'Alene, ID 83814

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: T2-040121					
Permittee:	Merritt Brothers Lumber Co.		Date Issued:	March 15, 2005	
Location:	Athol, Idaho	Facility ID No. 055-00039	Date Expires	November 26, 2007	

# Fuel-burning Equipment

2.9 The permittee shall not discharge to the atmosphere from any fuel-burning equipment particulate matter in excess of 0.015 grains per dry standard cubic foot (gr/dscf) of effluent gas corrected to 3% oxygen by volume for gaseous fuel.

# **Open Burning**

2.10 The permittee shall comply with the requirements of IDAPA 58.01.01.600-616, Rules for Control of Open Burning.

# Air Stagnation Advisory Days

2.11 The permittee shall comply with the requirements of IDAPA 58.01.01.550 through 562, Air Pollution Emergency Rule.

# **Obligation to Comply**

2.12 Receiving this permit shall not relieve the owner or operator of the responsibility to comply with all applicable local, state, and federal rules and regulations.

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: T2-040121					
Permittee:	Merritt Brothers Lumber Co.	***********	Date Issued:	March 15, 2005	
Location:	Athol, Idaho	Facility ID No. 055-00039	Date Expires	November 26, 2007	

# 3. NO. 1 AND NO. 2 NATURAL GAS-FIRED BOILERS

# 3.1 Process Description

The Cleaver Brooks boilers generate steam heat for the dry kilns.

# 3.2 Control Description

Boiler emissions from the combustion of natural gas are uncontrolled.

#### **Emissions Limits**

# 3.3 Emissions Limits

PM<sub>10</sub> and VOC emissions from the boilers shall not exceed any corresponding emissions rate limits listed in Table 3.1.

**Table 3.1 BOILER EMISSIONS LIMITS** 

Causaa Dagarladaa	PM <sub>10</sub>	voc	
Source Description	lb/day	T/yr	
Gas-Fired Boiler No.1	5.24	0.96	
Gas-Fired Boiler No.2	2.62	0.48	

[PTC Condition]

# **Operating Requirements**

# 3.4 Boiler Fuel Specification

To demonstrate compliance with Permit Condition 3.3, Boiler No. 1 and Boiler No.2 shall be fired on natural gas exclusively.

[PTC Condition]

AII	AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: T2-040121					
Permittee:	Merritt Brothers Lumber Co.	D BH TD N 055 0000	Date Issued:	March 15, 2005		
Location:	Athol, Idaho	Facility ID No. 055-00039	Date Expires	November 26, 2007		

#### 4. DRY KILNS – FIVE TOTAL

#### 4.1 Process Description

The facility consists of five dry kilns used to dry green lumber. The dry kilns are heated using non-contact steam coils, with steam being supplied by Boiler No. 1 and Boiler No. 2. The dry kilns have five heat exchangers. This permit allows for the construction of the fifth dry kiln.

#### 4.2 <u>Control Description</u>

Emissions from the dry kilns are uncontrolled.

#### **Emission Limits**

#### 4.3 Emission Limits

- PM<sub>10</sub> emissions from the five dry kilns shall not exceed 90.72 lb/day.
- VOC emissions from the five dry kilns shall not exceed 96.46 T/yr, in any consecutive 12-month period.

[PTC Condition]

# **Operating Requirements**

#### 4.4 Maximum Facility Throughput

- The maximum lumber throughput to the five dry kilns shall not exceed 24.75 MMdft/month, in any month.
- The maximum lumber throughput to the five dry kilns shall not exceed 170 MMbdft/yr, in any consecutive 12-month period.

[PTC Condition]

# Monitoring and Recordkeeping Requirements

#### 4.5 Lumber Throughput

The permittee shall monitor and record, monthly and annually, the lumber throughput and lumber species to the five dry kilns to demonstrate compliance with Permit Conditions 4.3 and 4.4. Throughput shall be recorded as million board feet, or 1,000 board feet. Annual throughput shall be determined by summing each monthly throughput over the previous consecutive 12-month period.

[PTC Condition]

#### 4.6 <u>VOC Emissions Monitoring</u>

Using the information monitored and recorded in Permit Condition 4.5 and the species-specific VOC emission factor, the permittee shall calculate monthly and annually, total VOC emissions to demonstrate compliance with Permit Condition 4.3. Annual emissions shall be determined by summing monthly emissions over the previous consecutive 12-month period. Records of this information shall remain onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

AII	AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: T2-040121				
Permittee:	Merritt Brothers Lumber Co.	77 114 FD 31 0.0000	Date Issued:	March 15, 2005	
Location:	Athol, Idaho	Facility ID No. 055-00039	Date Expires	November 26, 2007	

#### 5. PLANER MILL AND FINGER-JOINTING MILL

#### 5.1 Process Description

The facility contains several lumber processing areas, including a planer mill and a finger-jointing mill. Wood residuals (chips, shavings, and wood dust) generated from these process areas are pneumatically transferred to three cyclones where the wood residuals are separated from the air stream into two different truck bins.

#### 5.2 <u>Control Description</u>

PM<sub>10</sub> emissions from planer mill cyclone No. 4 are controlled by the planer mill baghouse, which are connected in series. PM<sub>10</sub> emissions from finger-jointing mill cyclone No. 5 and finger-jointing mill cyclone No. 6 are uncontrolled.

#### **Emission Limits**

#### 5.3 Emission Limits

PM<sub>10</sub> emissions from the planer mill cyclone No. 4 and planer mill baghouse, finger-jointing mill cyclone No. 5 and finger-jointing mill cyclone No. 6 shall not exceed and corresponding emissions rate limits listed in Table 5.1.

Table 5.1 BAGHOUSE AND CYCLONE EMISSIONS LIMITS

Point Source Description	PM <sub>10</sub>
	lb/day
Planer mill cyclone, No.4 with baghouse	39.7
Finger-jointing mill cyclone, No.5	12.6
Finger-jointing mill cyclone (pull-through), No.6	12.6

[PTC Condition]

# Operating Requirements

# 5.4 Planer Mill Baghouse Operating Requirements

- 5.4.1 The baghouse that controls PM emissions from the planer mill cyclone No.4 shall be maintained in good working order and operate whenever the planer mill cyclone No.4 is operating.
- 5.4.2 The pressure drop across the planer mill baghouse inlet and the filter media shall be maintained within the specifications contained in the manufactures operating service manual. This manual shall remain onsite at all times and shall be made available to DEQ representatives upon request.
- 5.4.3 The permittee shall monitor and record the pressure drop across the planer mill baghouse inlet and the filter media once per week. These records shall remain onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: T2-040121				
Permittee:	Merritt Brothers Lumber Co.	Facility ID No. 055-00039	Date Issued:	March 15, 2005
Location:	Athol, Idaho		Date Expires	November 26, 2007

# 6. SUMMARY OF EMISSION LIMITS

#### MERRITT BROTHERS LUMBER COMPANY - ATHOL

Table 6.1 EMISSION LIMITS - HOURLY (Ib/hr) AND ANNUAL (T/Yr)

	PM <sub>10</sub>	VOC	
Source Description	lb/day		
		T/yr	
Gas-fired Boiler No.1	5.24	0.96	
Gas-fired Boiler No.2	2.62	0.48	
Drying Kilns	90.72	96.46	
New Planer Cyclone, No.4 with Planer Mill Baghouse	39.7	NA	
Finger Jointer Cyclone, No.5	12.6	NA	
Finger Jointer Cyclone (pull-through), No.6	12.6	NA.	

Notes:

Compliance determined by a pollutant-specific U.S. EPA reference method, DEQ-approved alternative, or as determined by DEQ's emissions estimation methods used in this permit analysis.

Compliance with annual limits determined by multiplying the actual or allowable (if actual is not available) pound per hour emission rate by the allowable hours per year that the process(es) may operate(s), or by actual annual production rates.

PM<sub>10</sub> limits include condensibles.

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: T2-040121				
Permittee:	Merritt Brothers Lumber Co.		Date Issued:	March 15, 2005
Location:	Athol, Idaho	Facility ID No. 055-00039	Date Expires	November 26, 2007

#### 7. GENERAL PROVISIONS

- 1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit. The emission of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code 39-101 et seq.
- 2. The permittee shall at all times (except as provided in the *Rules for the Control of Air Pollution in Idaho*) maintain and operate in good working order all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable laws for the control of air pollution.
- 3. The permittee shall allow the Director, and/or his authorized representative(s), upon the presentation of credentials:
  - To enter upon the permittee's premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
  - At reasonable times, to have access to and copy any records required to be kept under the terms and
    conditions of this permit, to inspect any monitoring methods required in this permit, and require stack
    compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by the
    Director.
- 4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
- 5. In the event of any change in control or ownership of source(s) covered by this permit, the permittee and succeeding owner or controller shall notify DEQ of the change in ownership. Any proposed change(s) or modification(s) to this permit by the succeeding owner or controller shall be requested in accordance with the Rules for the Control of Air Pollution in Idaho.
- 6. This permit shall be renewable on the expiration date, provided the permittee submits any and all information necessary for the Director to determine the amount and type of air pollutants emitted from the equipment for which this permit is granted. Failure to submit such information within 60 days after receipt of the Director's request shall cause the permit to become void.
- 7. The Director may require the permittee to develop a list of operation and maintenance procedures to be submitted to DEQ. Such list of procedures shall become a part of this permit by reference, and the permittee shall adhere to all of the operation and maintenance procedures contained therein.
- 8. The provisions of this permit are severable; and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: T2-040121				
Permittee:	Merritt Brothers Lumber Co.	Facility ID No. 055-00039	Date Issued:	March 15, 2005
Location:	Athol, Idaho		Date Expires	November 26, 2007

- 9. The permittee shall notify DEQ, in writing, of the required information for the following events within 5 working days after occurrence:
  - Initiation of Construction Date
  - Completion/Cessation of Construction Date
  - Actual Production Startup Date
  - Initial Date of Achieving Maximum Production Rate Production Rate and Date